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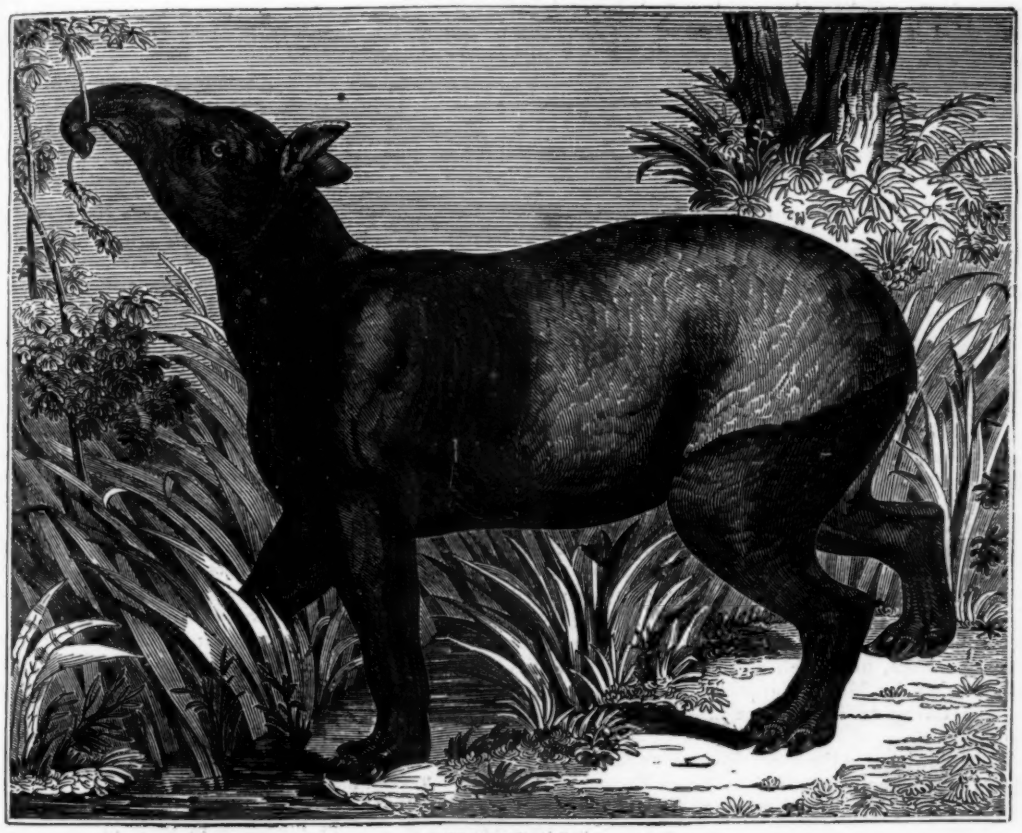
THE MALAY TAPIR.



[Indian Tapir.]

The tapir was first known as an American animal; and Buffon, in laying it down as a general rule that the animals of South America do not exist in the "Old World," pointed particularly to the tapir as a creature eminently peculiar to that continent. The contrary has of late years been proved; for not only have two fossil varieties been disinterred in France, Germany, and Italy, but the animal has actually been found existing in the peninsula of Malacca, and in Sumatra. This variety is represented in our wood-cut, and may be thus described:—The Malay tapir resembles in form the American, and has a similar flexible proboscis, which is six or eight inches in length. Its general appearance is heavy and massive, somewhat resembling the hog. The eyes are small. The ears are roundish, and bordered with white. The skin is thick and firm, thinly covered with short hair. The legs are short and stout; the fore feet are furnished with four toes, the hind feet with three. In the upper jaw there are seven molar teeth on each side, one small canine inserted exactly on the suture of the incisor bone, and in front six incisors, the two outer of which are elongated into tusks: in the under jaw there are but six molars; the canines are large, and the number of incisors, the outer of which are the smallest, is the same as in the upper jaw.

Naturalists have been unable to detect any essential difference between the Indian and American tapir, but there is a marked difference in colour, and the appearance which the former presents is not a little singular. The American tapir is of a dusky bay hue; but that of Malacca is strangely party-coloured. It is quite black on the proboscis, head, neck, and as far as the extremity of the fore-quarters; then its body becomes suddenly of a light grey approaching to white, and so continues to about half-way across the hind-quarters, when the black hue, without any softening off or mingling of tints, again prevails. The legs are quite black. The animal, in fact, looks precisely as if it were all black, but covered and girded round the body with a white stable-cloth, which leaves uncovered the head, neck, shoulders, legs, and part of the hind-quarters, and tail: so sharply and, to appearance, so artificially does the white band cut the black. But although the hues they assume are not the same, a change of colour with increase of age is common to both the animals of the old and new world. The American tapir, when young, is striped and spotted like a deer; the East Indian, at the same period of life, is beautifully spotted with brown and white.

All travellers who have described the tapir, whether as it exists in South America, or in Malacca and Sumatra, agree in representing it as the most docile of creatures. Its perceptions are quick, and its affections

very strong. According to some well-authenticated anecdotes, it is possessed of all the attachment and fidelity to its master which render the dog so interesting an animal.

The following account of a very young tapir, which Major Farquhar had alive in his possession, forms part of a communication made by him to the Asiatic Society:—"It appears that until the age of four months this species is black, and beautifully marked with spots and stripes of a fawn colour above and white below. After that period it begins to change colour, the spots disappear, and, at the age of six months, it becomes of the usual colour of the adult." Major Farquhar says, that he found this animal of a very mild and gentle disposition; that it became as tame and familiar as a dog; fed indiscriminately on all kinds of vegetables, and was very fond of attending at table to receive bread, cakes, or the like.

"The living specimen, Sir S. Raffles adds, "sent from Bencoolen to Bengal, was young, and became very tractable. It was allowed to roam occasionally in the park at Barrackpore, and the man who had charge of it informed me that it frequently entered the ponds, and appeared to walk along the bottom under water, and not to make any attempt to swim. The flesh is eaten by the natives of Sumatra."

A Sumatran tapir, procured about the same time with the preceding, and presented to the Asiatic Society by Mr. Siddons, the resident at Bencoolen, was also a most gentle animal, but of very lazy habits. He delighted in being rubbed and scratched, and this favour he solicited from the people about him by throwing himself down on his side, and making sundry movements. It is distinctly stated of this animal that another of his great delights was to bathe, and also that he remained a considerable time under water. The amphibious nature of the Indian as well as the American tapir seems, therefore, to be well established, though it was not observed by Major Farquhar in his specimen;—perhaps owing to its ill health—for it very soon died.

The following are the exact dimensions of two Malay tapirs: one a male, described by Major Farquhar; the other a female, killed at Bencoolen.

	Male feet.	inches.	Female feet.	inches.
Extreme length from the nose to the tail, measured along the back	6	10½	8	1
Circumference of the body.....	6	0	6	3
Height of the shoulder	3	2	3	5
——————haunch	3	4	3	9

The first intelligence of the existence of the tapir in Sumatra was given to the government of Fort Marlborough, at Bencoolen, in 1772, by Mr. Whalfeldt, who was employed in making a survey of the coast. He considered it to be the hippopotamus, and described it by that name; but the drawing which accompanied the report identifies it with the tapir. After this, the animal was not noticed for a considerable time. But, in 1805, when Sir Stamford Raffles arrived at Penang, he was informed that, a short time before, in the government of Sir George Leith, the natives had caught an animal which was, in every respect, the model of an elephant, only of a diminutive size. Unfortunately it was brought from Queda to Penang during the governor's absence, and dying before his return, the servants threw its body into the sea. On a subsequent visit made by Sir Stamford Raffles to Malacca, he made particular inquiries as to the new animal, and from the answers he received he felt little doubt that it was not a miniature elephant, but a tapir. Indeed, on showing the natives a drawing of the American tapir they seemed at once to recognise it. The result of later investigations was quite conclusive on this point; and, in 1818, there was in the menagerie at Calcutta a living tapir sent from Bencoolen, and Major Farquhar had, about the same time, sent to the Asiatic Society a stuffed specimen and a head, with a paper descriptive of the animal, and giving an account of the discovery. From these an account of the animal, with a drawing, was prepared by M. Diard, and sent to his friends in Paris, where, in March, 1819, M. Fred. Cuvier published it in his great work on the 'Mammalia of the Menageries in Paris.' In the museum of the East India Company there is an excellently preserved specimen of the Malayan tapir, received in England in 1820 from Sir Stamford Raffles. Our wood-cut is from an original drawing of this specimen.

As this animal has not been long discovered, we possess but little knowledge of its habits in the wild state. As, however, it is but fair to presume that its disposition and mode of life is similar to that of South America, it may be well to supply the deficiency by a short account of the species belonging to the New World.

The American tapir has its habitat in South America, and is most abundant in Guiana, Brazil, and Paraguay. It is the largest native animal of the South American continent; and, as well as the variety we have already described, looks like a mixture or compound of various animals. To the eye, it appears as a link between the pig and the elephant; its general form resembling the hog, and its upper lip being prolonged into a small moveable proboscis, shorter indeed in proportion, and applied to a different use, but still resembling the trunk of the elephant. In its habit, moreover, of taking readily to water and remaining under it, and walking about at the bottom of rivers and lakes, it approaches the hippopotamus. That very remarkable feature, the proboscis, is a prolongation of the snout, and can be retracted or extended at pleasure. It is much employed in breaking off the small twigs on which the animal usually feeds. It shuns the habitations of men, and leads a solitary life in the interior of the forests, in moist situations; but selects, for its abode, a spot somewhat dry and elevated. By travelling always in the same rounds, it forms beaten paths which are very conspicuous. It sleeps by day, and comes out in search of food in the night or early in the morning; and sometimes rainy weather will attract it forth by day from its retreat. It usually resorts to the water-side or the marshes; and frequently takes to the water, in which it swims with facility. It is rather uncouth and heavy in its motions on land. Its ordinary pace is a sort of trot; but it sometimes gallops, though awkwardly, with the head low. In its wild state it feeds on fruits and the young branches of trees; but, when domesticated, eats almost any kind of food. Though possessed of great strength, the tapir employs it only in self-defence, which it does vigorously against dogs, but is said to offer no resistance to man; and its disposition, whether in the wild or domestic state, is mild and timid. Lieut. Maw was informed, by the native Indians, that when the onça, a tiger of the country, attacks a tapir, he generally springs on its back. On this the tapir rushes into the thick woods, and endeavours to kill his assailant by dashing him against some large tree. The tapir produces but one young at a birth, of which it is very careful, leading it at an early age to the sea and instructing it to swim. The flesh is dry and disagreeably tasted;—the skin is tough and might be applied to useful purposes.

Lieutenant Maw, R.N., in 1828 bought at Para in the Brazils a young tapir that was perfectly tame. This animal unfortunately died very shortly after its arrival at the gardens of the Zoological Society in Regent's Park, to which it was presented by Lieut. Maw. This he believed to be the first living

specimen ever brought to Europe. The Zoological Society has since had its loss supplied by a full-grown tapir, which seems to thrive very well. From its curious formation and its gentle inoffensive habits, it offers a great attraction to the visitors of these interesting gardens.

SMUGGLING DOGS.

The recently published 'Report of the Commercial Relations between France and Great Britain' contains some very curious statements on the subject of the fraudulent introduction of articles by means of dogs. Since the suppression of smuggling by horses, in 1825, dogs have been employed. The first attempts at this extraordinary use of animal sagacity were made at Valenciennes; the system afterwards spread to Dunkirk and Charleville; and has since extended to Thionville and Strasburg; and last of all, in 1828, to Besançon. The dogs which are trained to these "dishonest habits" are conducted in packs to the foreign frontier, where they are kept without food for many hours; they are then beaten and laden, and at the beginning of the night started on their travels. They reach the abode of their masters, which are generally selected at two or three leagues from the frontiers, as speedily as they can, where they are sure to be well treated, and provided with a quantity of food. The dogs engaged are always, it is said, conducted in leashes of from eight to ten, and sometimes from twenty to thirty; they do not go willingly, inasmuch as they anticipate ill-usage and fatigue, and therefore they are forcibly conducted. It is said they do much mischief by the destruction of agricultural property, inasmuch as they usually take the most direct course across the country. They are for the most part dogs of a large size; and the 'Report' states, that, being so tormented with fatigue, hunger, and ill-usage, and hunted by the Custom House officers in all directions, they are exceedingly subject to madness, and frequently bite the officers, one of whom died in consequence in 1829.

Tobacco and colonial products are generally the objects of this illicit trade;—sometimes cotton-twist and manufactures. In the neighbourhood of Dunkirk, dogs have been taken with a burden of the value of 24*l*., 30*l*., and even 48*l*. Publications hostile to the government have not unfrequently been introduced in this manner. In 1833, it was estimated that 100,000 kilogrammes* were thus introduced into France; in 1825, 187,315 kilogrammes; in 1826, 2,100,000 kilogrammes; all these estimates being reported as under the mark. The calculation has been made at 2¼ kilogrammes as the burden of each dog; but they sometimes carry 10 kilogrammes, and sometimes even 12. The above estimate supposes that one dog in ten, in certain districts, and, in others, one in twenty, was killed; but these calculations must necessarily be vague. In the opinion of many of the custom-officers, not more than one in seventy-five is destroyed, even when notice has been given and the dogs are expected.

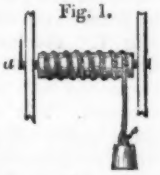
Among the measures proposed for the suppression of this mode of smuggling, a premium of three francs (half-a-crown) per head has been allowed for every frauding dog ("*chien fraudeur*") destroyed; but this, as appears by the tables, has been wholly inefficient, though the cost has not been inconsiderable, namely 440*l*. per annum before 1827, and 600*l*. since that period, when the premium was allowed in the Thionville district, where the trade is still carried on by the aid of dogs more extensively than elsewhere. It appears that 40,278 dogs have been destroyed between 1820 and 1830, and premiums to the amount of 4833*l*. paid for their destruction. Many severe measures of police have been proposed; too severe, in fact, to be executed: the prefects have required individuals who conducted dogs in leashes to take out passports, as for foreign countries. The attempts, however, have been ineffectual, and the authorities have lent but feeble aid to the suppression of the abuse. There is a law making it penal to possess such dogs; but the difficulty of proof seems to render this law inoperative. There has been hitherto no impediment to the exportation of any but hunting dogs; but it is now proposed either to lay a heavy tax on the exportation of dogs generally from France, or to prohibit the exportation altogether. The former course is preferred; and five francs (about 4*s*.) is mentioned as a sum to be levied on all dogs exported from the smuggling frontier, and it is further proposed to prohibit all sales of large dogs within six miles of the frontiers.

* The kilogramme is equal to 2lbs. 8ozs. 3dwts. 2grs., troy.

CLOCKS.—No. II.

The mechanism of a clock seems, at first sight, exceedingly complicated and mysterious, when, in fact, as far as is required for showing the time, nothing is more simple. Suppose a barrel or spindle (fig. 1.) turning freely between two pivots, like the roller of a jack-towel; if a string be wound round the roller, and a weight attached to the end of it, the roller will, of course, turn round until the weight reaches the floor, or the string is all unwound. Nothing remains to be done but to find some means of preventing the roller from turning too rapidly, or too slowly, and to adapt to it some index to measure its revolutions, and the clock is complete. It is evident that when the roller has been made to turn with the required velocity, it will only be necessary to fix upon it a hand (*a*) with a dial. If, for example, the roller turns round once in twelve hours, and the dial, on the face of which the hand turns, be divided into twelve parts, the hand will show, by traversing one division, that one hour is passed; smaller divisions will, of course, enable the hand to point out smaller portions of time.

Fig. 1.



We now proceed to show how the roller may be made to turn with the velocity required. If two wheels of the same size be placed in contact, as in Fig. 2, and one turned round, the other will of necessity also turn round, and with the same velocity but in a contrary direction: if one wheel be twice as large round as the other (as at *b*) the smaller wheel will turn twice while the larger goes round only once; because half the circumference of one is equal to all the other, and each half will of necessity drag round the whole of the little wheel. If the wheels be made in any other proportion the effects will be similar, and the smaller will turn oftener than the larger, in proportion to its smallness. Now, although these effects will take place when both the wheels turn freely, the case is altered when the driving wheel, as in all clocks, has a tendency to turn with a much greater speed than is allowed to the driven wheel: if the roughness of the wheels in this instance should at first force the driving wheel to turn slowly, like the other, in time they will both become smooth, and the first wheel will slip round without turning the other. To remedy this, teeth are cut on the edges of the wheels, which lock in each other, so that one wheel cannot by possibility turn round without the other. (Fig. 3.)

Fig. 2.

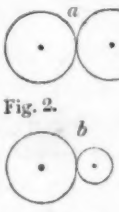
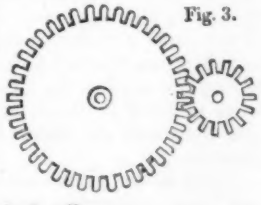
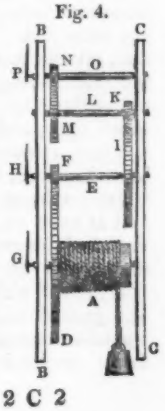


Fig. 3.



To apply this to our original roller (A, Fig. 4), we will suppose it determined that it should go round once in twelve hours. Let it be suspended between two metal plates, B B, C C, as in the figure, and let a wheel D, with seventy-two teeth, be fixed firmly to it, so that the roller cannot turn without the wheel. Now let another roller or spindle, E, be suspended in a similar manner, and at such a distance that a little wheel, F, fixed to it, containing six teeth, may be in contact with the wheel D, fixed to A, and turn with it. As there are twelve sixes in seventy-two, the little wheel—which is technically called a pinion—

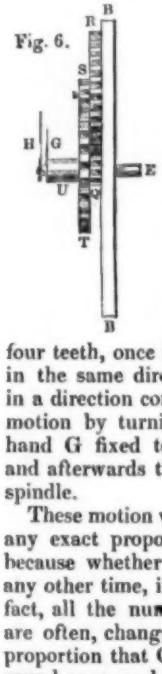
Fig. 4.



will turn round twelve times, while the large one revolves once, for every twelfth part of the large wheel will carry the pinion round once. The spindle E will consequently go round once an hour. Now let hands be fixed to the ends of these spindles, as was done in Fig. 1. The hand G, fixed on spindle A, will show the hour, and the hand H the minute, provided that the respective dials be divided into twelve hours and sixty minutes. The same action, carried further, gives a hand which will go round in one minute; but as there are sixty minutes in an hour, and it would be very inconvenient to have one wheel sixty times as large as another in the same clock, this part is effected by two steps. In the figure, the wheel I, containing sixty-four teeth, is fixed to the spindle E; this wheel goes round as the hour hand does, once an hour, and in that hour it turns the pinion K, containing eight teeth, eight times round, or once in seven minutes and a half. The pinion K is fixed to a spindle, L, which carries no hand, but to which is attached a wheel, M, of sixty teeth, moving a pinion, N, of eight teeth, fixed on a spindle, O, which carries a hand, P. This last pinion goes round seven times and a half while the wheel M goes once, and consequently carries the hand round in a minute. Here, then, is a complete clock, with three hands (Fig. 5), one showing the hour, another the minute, and another the second: very awkward, it must be admitted, as the hour hand goes in one direction, while the minute and second hands turn in the contrary. This defect is obviated by placing two wheels outside the brass plate B B (Fig. 6), technically called the motion wheels, by which is also obtained the motion of the hour and minute hands upon the same centre. In this case no hand is fixed upon the barrel A (Fig. 4), but a small wheel, Q, of eight teeth, is fixed upon the prolongation of E, outside the metal plate. This wheel of course revolves every hour, and turns the wheel R, of thirty-two teeth, once in four hours: the wheel R turns upon a pivot, fixed in the metal plate, quite unconnected with the inside. A pinion of eight teeth, S, is fixed to the wheel R, and it turns a wheel, T, of twenty-four teeth, once in twelve hours. This wheel, T, turns in the same direction as the spindle E, for Q turns R in a direction contrary to itself, and S reverses this last motion by turning T. The piece U, with the hour hand G fixed to it, is put loosely upon the spindle, and afterwards the minute hand H is fixed tight to the spindle.

Fig. 5.

Fig. 6.



These motion wheels render it unnecessary to preserve any exact proportion between the wheels D and F, because whether the barrel A turns once a day, or in any other time, it shows nothing on the dial; and, in fact, all the number of teeth here given may be, and are often, changed, only care is taken to keep such a proportion that O shall turn sixty times while E goes round once, and E twelve times while G turns once.

There remains now nothing to be done but to regulate the clock, that is, to fix to it some machinery by which the hand G may go round once in twelve hours, and H once an hour; for, as far as we have yet seen, the clock, as soon as wound up, would begin to run down with an increasing velocity, the wheels would whirl round with rapidity, and the weight would be on the ground in a short time. It is pretty evident that the value of a clock must chiefly depend upon the regulating mechanism; no nicety of movements can possibly compensate for any defect here, while a clock of coarse workmanship may be kept in tolerable order by a good regulator. How this was effected in ancient clocks is not known; probably some part was fitted up with a fly-wheel, which was prevented from turning too rapidly by the resistance of the air; or perhaps the moving power was water falling upon a little mill-wheel, which of course would not move faster than the water which fell on it: in either case accuracy was out of the question, as the balance invented about the thirteenth century was considered a great advancement. This was a bar of metal, A B (fig. 7), suspended by a pivot, and furnished with weights at the extremities. A vibratory motion was communicated to the balance by some such apparatus as is shown in the figure. The toothed-wheel E (attached to spindle O of fig. 4), in turning round, touched the pallet G, fixed to the bar C D, which caused the end B of the balance to advance. The balance would now run round, unless stopped by some additional contrivance. This was the other pallet F, also fixed to the bar C D, not in the same line with G, but half round; so that when G touched the wheel, F was clear of it, and when F came in contact, G was quite detached. When the wheel moved the pallet G, as before stated, and the balance got half way round, the pallet F would come in contact with the opposite part of the circumference of the wheel and stop it suddenly. This caused a recoil, the bar returned to its first situation, and was again acted upon as at first. The weights were moveable, and might be shifted nearer to or farther from the centre, as it might be desired to make the clock go faster or slower. The idea of this apparatus was good, and with some little alteration, and the addition of a spring to insure a more regular recoil, it forms the regulating principle of the common watch to the present day; but, constructed as it then was, the balance was very defective, and, except in those cases where portability was necessary, it was wholly superseded by the pendulum, as soon as the idea was conceived of adapting this valuable regulator to the wheels of a clock. The discovery of the isochronism* of the pendulum is due to the celebrated Galileo, who, early in the seventeenth century, demonstrated that its vibrations were performed in equal times, when not urged beyond narrow limits. Sensible of the value of this equality, he made many of his astronomical observations by its aid, employing persons to count the number of vibrations made. So correct were the results of this method, that it was believed, and is still by some persons, that Galileo was the inventor of the pendulum clock, as it appeared hardly credible that such accuracy could be obtained without its assistance. It is, however, generally admitted that the pendulum was first actually adapted to the clock in 1657 by Huygens, who was no doubt aided by the experiments of Galileo, and who was aware of the difficulty and uncertainty of counting the vibrations of a pendulum for any great length of time, as well as of the irregularity arising from setting it in motion by the hand when about to stop of itself. The mode of adapting the pendulum was at first similar to that employed in fixing the balance, but this caused large vibrations of the pendulum, and consequently demanded a greater power in setting it in action; besides, as we have already stated, small vibrations alone could secure perfect equality of beat. A very great number of methods are in use for effecting this purpose, technically called the escapement; one of the most common escapements is shown in fig. 8. The pendulum

Fig. 7.

* From two Greek words (*isos* and *χρονος*) meaning equal times.

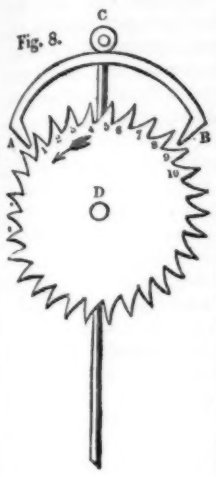


Fig. 8.

hangs from the point C, to which is fixed the steel anchor, A C B, moveable with the pendulum, so that when the latter vibrates to the right, the pallet A strikes against the wheel D, and when to the left, the pallet B does the same. The wheel is provided with teeth (30 in the figure), and being fixed to the spindle O (of fig. 4), it is intended to turn once in a minute. When the clock is at rest, the position is as in the figure; as soon as the weight is drawn up, the wheel begins to turn to the left, in the direction of the arrow, and the tooth marked 1 pushes against the pallet A, as though endeavouring to make the pendulum vibrate to the left; but as the pendulum is usually long and heavy, it will be necessary to help it with the hand at first setting off. As soon as the pendulum is so far out of the perpendicular as to allow the tooth 1 to pass the pallet A, the tooth 9 strikes against the pallet B, which has been pushed forward by the first movement. The pendulum now returns by its own weight, and rises to the right hand nearly as far as it went before to the left: by this movement the tooth 9 escapes the pallet B, and the tooth 2 strikes against the pallet A. This alternate striking and escaping (whence the name escapement) maintains a constant vibration of the pendulum, and the clock will go with accuracy.

The very small force exerted by the wheel D would hardly seem adequate to keep in action a rod with a heavy weight attached to it; but it must be remembered that a well-suspended pendulum once set in motion will continue to beat for a very considerable time, and that each vibration differs from the preceding by a quantity imperceptible to the senses; consequently a very small force will suffice to make up that minute deficiency.

The mechanism by which the striking the hours is effected is not more complex than that which we have explained; but, being composed of parts not in continuous motion, and, when in action, performing sudden and seemingly irregular movements, its operation is not so readily seen. This part of the subject will be resumed in another Number.

WILD DOGS IN VAN DIEMEN'S LAND.

The late article on wolves in the 'Penny Magazine' will have prepared our readers to be interested in a short statement of the annoyances to which their countrymen in Van Diemen's Land are exposed from the ravages of wild dogs, the extent of which may be estimated from the strong alarm which is expressed, and from the following general statements which are taken from a speech delivered by Lieut. Hill to a meeting held last September at Campbell Town, in the interior, to consider of the best measures to be taken to remedy the evil. We should have been happy to have been distinctly informed concerning the origin of these animals; but from the satisfaction which is expressed at an existing tax on domestic dogs, and other incidental expressions, we infer that they are the progeny of the domestic animal, "littered in the bush," and allowed to run wild. They commonly associate in packs, like the wolf, and are so cunning, that the isolated attempts made to destroy them have been almost invariably baffled. It would seem that each pack appropriates a district to itself: Mr. Hill mentions that the same troop of sixteen wild dogs are constantly seen on his lands. They are at present shy of man, but serious apprehensions are expressed that they will not long continue so ceremonious as at present; and a particular anxiety is felt about the children*, for it is not doubted that the savage animals would carry them off if an opportunity offered.

The districts infested by the wild dogs are more especially appropriated to sheep-grazing, none of which have escaped, and a large tract of country is mentioned in which there was not a single flock that had not been terribly visited. In many quarters it had been necessary to double the number of shepherds, and to watch the flocks by night and by day, as well as to surround them with large fires. But none of these precautions have deterred the ravenous animals from making their attacks, to an extent of injury which threatens to bring complete ruin on all the sheep-owners in the island, and consequently to strip the colony of its most staple and valuable article of export—wool. One gentleman lost in three months no less than 1200 lambs and sheep—another 700—another 300! Even in the immediate vicinity of Campbell Town, among other sufferers, one gentleman lost, in the course of a year, 500 lambs and sheep. He states, that after one night's slaughter he sent out two drays, and brought them home loaded with the mangled carcasses: he declares that the increase by births will not replace those destroyed by the dogs, and that he seriously contemplates a timely withdrawing from pastoral concerns altogether. Another gentleman had also suffered so severely as to be obliged to remove his flock off his own land, on the Elizabeth River, to prevent its total destruction. The sensation produced by this state of things is strongly indicated by Mr. Hill's concluding expressions, and the earnestness with which he inculcates the necessity of united exertion. "The country," he says, "is free from bush-rangers; we are no longer surrounded and threatened by the natives: they have been removed, the settlers placed in a state of security, and the change is found on trial to be productive of the greatest possible benefit to the natives themselves. We have, then, only one enemy left in the field, but this enemy strikes at the very root of our welfare, and through him the stream of our prosperity is tainted at its very source. Yet be not discouraged, for great although the evil be, it will be found nothing when brought in contact with the intelligence and energy of a whole country. Let us unite then heart and hand in endeavours to avert the impending danger, and, if we do unite, there is not the slightest reason to doubt but that our efforts will be crowned with success."

The resolutions agreed to at this meeting of the persons more immediately interested in putting a stop to this rapidly-increasing calamity were, chiefly, that a society should be formed for the attainment of this object;—that funds should be raised by subscription to be applied in rewards for the destruction of wild dogs;—that one pound should be offered for every wild dog, and two pounds for every wild bitch;—that the attention of the colonial government should be solicited to the subject;—and that Mr. Hill should embody his observations in a pamphlet to be printed for general distribution.

In effect, there seems little difference between this calamity and that produced by wolves in this and other countries of Europe in former times. We have seen how slow the process was before the invention of fire-

* We may here mention an incident which would have been better placed in the paper on wolves, if it had then met our notice. About the middle of the seventeenth century, the Duke of Orleans forbade the wolves on his domains to be destroyed, in consequence of which they increased so rapidly in the forest of Orleans, that they often came and took children out of the very streets of Blois

arms,—how many centuries elapsed before their extirpation was effected in England. A point of considerable interest in the history of civilization will now be to observe with what comparative facility and speed the colonists—strong in the inventions of social life and the power of co-operation—will effect this object in a country so much more thinly peopled at present than this was at a very remote period.

HOUSES IN TURKEY AND EGYPT.

The private dwellings in Turkey, and in Egypt, generally present no external appearance of beauty or splendour, however great may be the wealth or exalted the rank of their occupants. Even at Constantinople, with the exception of the Seraglio (or palace of the Sultan), the summer palace on the Bosphorus, and two or three mansions occupied by sultanas or princesses of the imperial family, there is scarcely a house at all striking from its extent, elevation, or architecture. By a precept of their religion all displays of this sort are confined to the mosques or temples, their hospitals, colleges, and other works of public utility. In the strict letter of the law, indeed, no dwelling-houses whatever ought to exceed a certain low elevation, and all ought to be built entirely of wood. The Koran also prescribes extreme simplicity, and the absence of carving, gilding, and every kind of ostentatious ornament, in the interior of houses. But this and sundry other clauses of their sumptuary laws are commonly infringed by the wealthier Mohammedans.

The outside of a house in Turkey and Egypt seldom offers anything to the passing eye except dead walls, with here and there a gazebo (or window latticed in the fashion of female convents in Catholic countries), and, in the front of the house, a large folding-door with a shah-nishin, or balcony, completely covered with trellis-work, and rendered almost impervious to sight. The houses are never numbered,—there are no name-plates on the doors, no inscriptions or armorial bearings on the walls. These walls are generally built up to the height of the first story with stone or brick,—the rest of the construction, which seldom exceeds one story above the ground-floor, is made of wood. We are speaking here of the better kind of houses, for the common abodes are built almost entirely of lath and plaster and light timber. The use of such materials may account for the destructive fires so common in Turkey. These fires frequently owe their origin to the discontents of the people, who have long adopted this irrational mode of showing their political feelings. Many of them, however, are accidental, and are easily to be understood, by remembering that the Turks use no fire-places as we do, but warm themselves in winter by placing shallow dishes of burning charcoal under a sort of table called a tandour, which is made of wood and covered by a stuffed cotton cloth or coverlet, and consequently, like the flooring, matting, and nearly all the materials of their apartments, very combustible. Now not only is this brasier or pan liable to be upset, but, through negligence, pieces of ignited charcoal, used by the Turks (who, when within doors, are almost always smoking) to light their pipes, are often let fall upon the floor, and at times prove sufficient to set fire to the house. But, whether arising from accident or design, these conflagrations are invariably dreadful, should a strong wind blow when they happen. Several times within the last half century nearly the whole of Constantinople, with the exception of the mosques and the few strong stone buildings, has been reduced to ashes.

On entering within the gates of a Turkish or an Egyptian gentleman's house, the scene certainly improves, and often, by its lightness, airiness, and gaiety, the interior forms a striking contrast with the dull, sombre exterior. The architectural decorations, the articles of luxury and ornament that would offend the scruples of the people and the jealous eye of government, if exposed *without*, are often found collected and united with no unsparing hand *within*.

An open court, often in spite of the law, paved with beautiful marble slabs, and always, when the weather is fine, partially covered with matting of pretty variegated patterns, of which the best is made in Syria and Egypt,—shelving terraces, and parterres of flowers round parts of this court, and gaily painted alcoves, galleries, pillars, and the hanging roofs of the apartments, flanking the court in other parts, furnish very pleasing features to the picture; and if, as is very commonly the case, a marble fountain shoots up its little columns, and the water plashes in a marble basin in the centre of the yard, and a few tall trees partially shade both the house and the open space, the locality is truly refreshing and delightful. In the country mansions of the rich Mussulmans, the enclosed court or square is often very large, and is adorned with a variety of small detached kiosks or summer-houses, flower-beds, shrubberies, and with several fountains of pure sparkling water. But water, so essential to comfort in a warm climate, and indispensable to the observances of the Mohammedan religion, which prescribes frequent ablutions, is liberally supplied even in the houses of the poor, or is close at hand in most parts of Turkey. The civil code of the country contains many curious laws on this head. It proclaims, as a sin against God and man, the refusing to supply one's neighbour with water,—it gives a liberal right of property in land to those who dig a well, discover a spring of water, or make either a subterranean conduit or an aqueduct; and, at the same time, the religious code allots honours little short of saintship to such as prove benefactors to mankind in this sense.

The ground-floor of gentlemen's houses is generally given up entirely to the kitchen, offices, and the servants and dependants. A broad open staircase, built invariably of wood, leads to the Diwan-khané, which is a broad corridor or saloon, open in front and commanding the court, and access to all the men's rooms of the upper apartment. In most instances this corridor runs the length, and sometimes round three sides, of the house, though it is not always of the same level; but, in many cases, rises or sinks, the communication along the whole line or lines being kept up by means of stairs, which occasionally give a capricious but rather picturesque effect. At the angles and elevated points, this open corridor is generally ornamented with projecting kiosks, in which the domestics in immediate attendance, or persons waiting to have audience of the master of the mansion, lounge and smoke their pipes. These kiosks are prettily painted; the prevailing colours are blue, green, yellow and red;—the designs are in the style we call arabesque. Their front panels, as well as parts of the interior walls of the house, are sometimes adorned with paintings of landscape, fruits, and flowers, but representations of the human form are very rarely tolerated.

The upper or grand apartment is strictly divided into two, the line of demarcation between which is sacred. One of these divisions, called the Salemlik, is occupied by the master of the house, his sons, &c., and is open to all male servants and visiters; the other, called the Harem, which word signifies a "holy place," is devoted to the women, and entrance into it is interdicted to all men. In some of the large mansions there is a sort of neutral ground between the two:—this is called Mabeïnn (literally "between two"); but none save the father of the family enjoys access even here. The rooms of reception in the Salemlik that open upon

the great corridor are frequently spacious, seldom very lofty, and always exceedingly plain and devoid of ornament, except in the ceiling, the sofas, and the carpets, or mats on the floor. The walls are painted of a plain, light, uniform colour; over the door there is a framed inscription, in large black letters, or in letters of gold, taken from the Koran; the name of God or Mahomet in Arabic, and the toughra or monogram of the reigning sultan, done in black, red, or gold letters, are sometimes found in two or three places on the superfices of the walls. There is no tapestry, no fanciful paper; and paintings and engravings never impart the beauty and interest we are accustomed to in England. A divan, or a continuous sofa, low and very broad, runs round three sides of the room, and this is the only stationary piece of furniture. There are no chairs, no footstools, no detached ottomans, no tables, no bookcases, no looking-glasses;—in short, there is not one of those numerous articles of convenience, luxury, or ornament, that are met with in most respectable English houses. His broad easy sofa is almost everything to the in-door Turk; he sits on it, cross-legged, during the day, smoking his chibouk, receiving his visiters, or despatching his business. If he has to write, he requires neither table, desk, nor portfolio: he merely places his sheet of paper on his knees, and so scrawls with his strong reed pen. He takes his coffee and sherbet on the sofa, and when he has to dine or sup, a pewter tray, supported on a small low stool, is brought into the room and set upon the floor; he then descends from the sofa, crosses his legs under him, sits down on the carpet or mat, and so despatches his meal, after which, stool, tray, and everything connected with them, are removed. At night he does not retire, as we do, to a separate bedchamber, nor does he even make use of anything exclusively a bed; his servants or slaves shake up the cushions, lay down a coverlet or a pelisse or two, and the sofa becomes his bed. These sofas, we must mention, are frequently covered with fine woollen cloth, and tastefully fringed. The favourite colour for this cloth is blue: carpeting is sometimes substituted for cloth. Above the sofa, and within reach of a person sitting cross-legged upon it, there is here and there a little shelf to hold such things as may be most frequently needed. A great Turk, however, rarely gives himself the trouble of raising his arm, but when he wants anything he summons a slave, not by ringing a bell, but by clapping the palms of his hands together. To enjoy the advantages of air and shade, all the windows, which reach from the roof nearly to the level of the sofa, are furnished with broad wooden blinds, painted green, and which can be wholly or partially closed. The curtains to the windows, when they have any, (which is not often the case,) are of very common printed cotton. The apartments are almost invariably well ventilated, and, in this respect, the architects of more than one Christian country might advantageously study the plans of Mohammedan houses. In Constantinople, where the cold is frequently severe during two or three of the winter months, the windows of the good houses are furnished with glass of rather a common quality, and chiefly procured from Trieste; but in many parts of Asia Minor and Egypt, where, from the uniform mildness of the climate, such a protection is not required, a pane of glass is rarely seen. At the great town of Magnesia, at the foot of Mount Sipylus, the Turks once carried on a good manufacture of stained glass, with which they ornamented their houses and kiosks, but they have long lost this, like so many other branches of industry and art in which they, at one time, undeniably excelled.

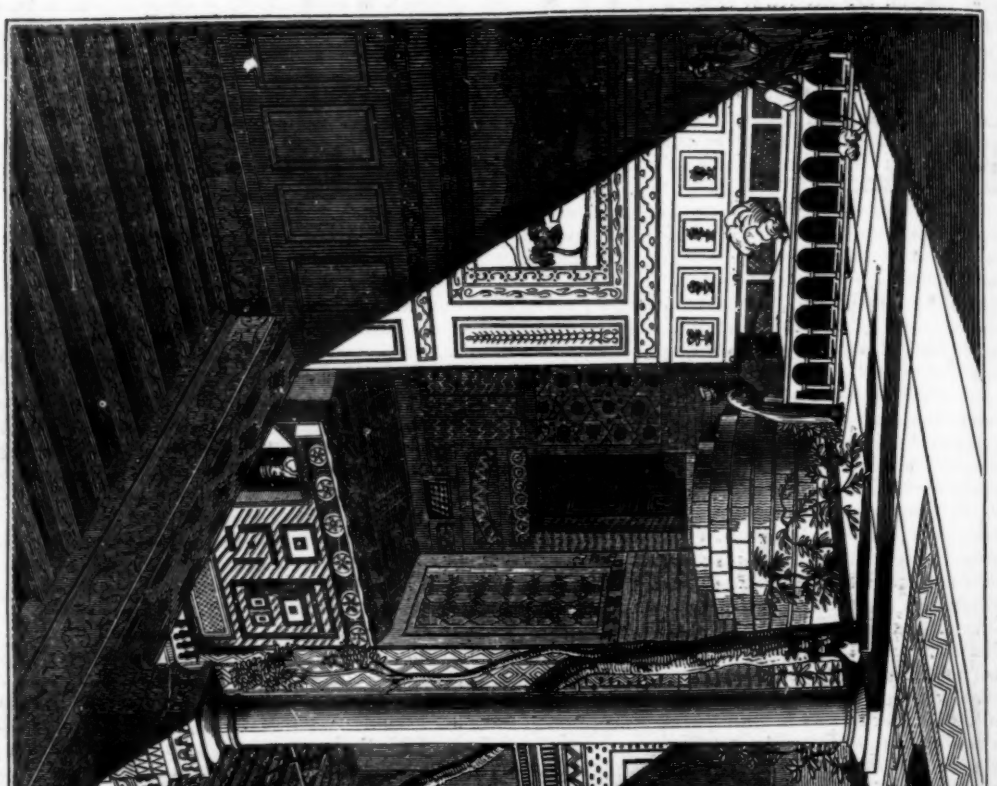
The ceilings of the rooms, which we have mentioned as among the most ornamental portions of a Mussulman apartment, are frequently exceedingly beautiful. Indeed, in many houses, it seems as if all art and ornament were reserved to be lavished on the ceiling. It is formed of curiously tessellated wood-work, at times representing a mosaic in wood, dotted here and there with golden stars; at times painted in the arabesque style with green, blue, and gold, and in the most varied and complicated designs; and at other times painted in stripes of white, red, yellow, blue, and green, and ornamented with bouquets of flowers. We have mentioned only a few of the varieties. An English traveller who was detained by circumstances at Aleppo, occupied himself for several weeks in making a drawing of the ceiling of a fine room he occupied, and even after so much time, so elaborate were the ornaments, and so beautiful the colours and the gilding, that he left the work incomplete, and in despair of rivalling the hues of the original. The most beautiful and rich of the colours they employ has precisely the tint of the lapis-lazuli

It would be giving the Turks a chance of having attributed to them a merit they do not possess, were we not to mention that these works of art, as well as the building of their houses, kiosks, &c., are almost invariably performed by Armenians, and other Christian subjects of the Porte.

The carpets on the floors of the rooms are of that good, strong kind so well known in England under the name of "Turkey carpets," and therefore require no description. These carpets are chiefly manufactured in the country behind Smyrna, in Asia Minor, and at Salonica, and its neighbourhood in Europe. They still form an important article of export both to Europe and the United States of America. Turks of very superior wealth or taste, however, generally use Persian carpets, which are finer and much more beautiful both in colour and pattern. The Syrian or Egyptian matting, used at other times, is of a much finer quality than that we have mentioned as being laid down in the court. It is delicately worked, light and cool to the eye, and far superior to anything of the sort we possess. When carpets are used they do not often cover the whole of the room, but are merely ranged in slips near to the sofa; in this case the wooden floor, which in general is neatly put together in the *parquet* fashion, is kept clean and polished. The matting, on the contrary, almost always covers the entire floor: it is bound at the edges with coloured cloth or gilt leather.

Though there are many pleasing features in the interior, the open court and the part of the house very faithfully represented in our engraving, will always be the most striking and agreeable to the European traveller. By attentively examining the engraving, our readers will obtain a good notion of the domestic architecture of the Mussulmans.

It is worthy of remark that, throughout the dominions of the sultan, the Christian and other rayah subjects can neither build their houses so high as the Mohammedans nor paint them of the same colour externally. The elevation of an Armenian, a Greek, or a Jewish dwelling, as compared with that of a Turk, must be only as ten to twelve, and it must be painted on the outside with black, or some very sombre colour. The Turks may indulge in gayer hues, but even they cannot build a house beyond a certain height without incurring heavy fines. All these and numerous other particulars that are constantly interfering with individual liberty and taste are strictly defined by laws, and the Mimar-Aghà, or intendant of buildings (a very lucrative post), to whom the execution of these laws is confided at Constantinople, is always looked upon as the most meddling, insupportable tyrant of the place. He exercises an absolute authority over all the architects and builders of the capital and its suburbs, whether in Europe or in Asia.



Open Court and House at Grand Cairo.]

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